Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) Process for anticipating and/or preventing ~~the~~ a risk of spontaneous ignition and/or explosion of an explosive atmosphere ~~stored~~ in a confined or semi-confined environment chosen from ~~the~~ a group consisting of a grain silo, a center for storing coal dust, industrial dusts, animal or plant meals or fertilizers, driftways and fuel tanks optionally incorporated in a vehicle, in which ~~the~~ a temperature of ~~the~~ a mixture and any change over time are measured from the time of creation of said atmosphere, and the critical moment of spontaneous ignition and/or explosion of this mixture is determined by determining the induction time remaining to go, that is to say the time elapsed between the creation of said atmosphere and the critical moment beyond which there is a risk of said atmosphere spontaneously igniting and/or exploding.

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2. (Currently Amended) Process according to Claim 1, ~~characterized in that~~ wherein the fertilizers are chemical fertilizers or ammonium nitrates.

3. (Currently Amended) Process according to Claim 1, ~~characterized in that~~ wherein the fuel tanks are tanks of hydrocarbons chosen from the group consisting of kerosene, petroleum spirit, methane, butane and propane.

4. (Currently Amended) Process according to Claim 1, ~~characterized in that~~ wherein the hydrocarbon tank is a truck, aircraft or boat tank.

5. (Currently Amended) Process according to ~~any one of the preceding~~ claims 1, ~~characterized in that~~ wherein use is made of alarm means or means for preventing spontaneous ignition and/or explosion of said atmosphere when the time elapsed from the moment of creation of said atmosphere approaches the critical moment ~~(τ_i)~~ of spontaneous ignition.

6. (Currently Amended) Process according to ~~any one of the preceding~~ claims 5, ~~characterized in that~~ wherein ~~the~~ implementation of the alarm means and/or means for preventing spontaneous ignition and/or explosion of said atmosphere is engaged manually or automatically.

7. (Currently Amended) Process for preventing ~~the~~ a risk of spontaneous ignition of an atmosphere of an environment selected from ~~the~~ a group consisting of ~~again~~ silo, a center for storing coal dust, industrial dust, animal or plant flours or fertilizers, driftways and fuel tanks optionally incorporated in a vehicle,

wherein the atmosphere being approximately at ambient temperature, ~~the~~ an induction time before spontaneous ignition and/or explosion is determined through a measurement of ~~the~~ an initial temperature of the atmosphere.

8. (Currently Amended) Process according to claim ~~1~~ 7, wherein the ambient temperature variation over time is measured.

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9. (Currently Amended) Process according to claim ~~1~~ 7, wherein the atmosphere comprises gas, vapors, mists, dusts, emulsions or combustible grains, mixed or in contact with oxygen or air.

10. (Currently Amended) Process according to claim ~~1~~ 7, wherein the atmosphere is in a confined or semi-confined environment.

11. (Currently Amended) Process according to claim ~~4~~ 10, wherein the atmosphere is in a flat silo or in contact with ~~the~~ a surface of semi-confined bulk storage.

12. (Currently Amended) Process according to claim ~~1~~ 7, wherein the fertilizers are chemical fertilizers or ammonium nitrates.

13. (Currently Amended) Process according to claim ~~1~~ 7, wherein the fuel tanks are storage tanks of hydrocarbons chosen from the group consisting of kerosene, fuels, methane, butane and propane.

14. (Currently Amended) Process according to claim ~~1~~ 13, wherein the hydrocarbon tank is a truck, aircraft or boat tank.

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15. (Currently Amended) Process according to claim ~~1~~ 7, wherein use is made of alarm means for preventing spontaneous ignition and/or explosion of said atmosphere when the induction time elapsed from the moment of creation of said atmosphere approaches the critical moment ~~(t_i)~~ of spontaneous ignition.